

# Work Order ID 78149

**\*78149\***

Page 1

December-29-11 10:36:44 AM

Item ID: D2662-1 Accept **\*N900040100\*** Setup Start **\*NS1\***  
 Revision ID: Stop **\*NS2\***  
 Item Name: Saddle, LH In 206  
 Start Date: 29/12/2011 Start Qty: 10.00 **\*10\*** Cust Item ID:  
 Required Date: 06/02/2012 Req'd Qty: 10.00 **\*10\*** Customer:  
 Reference:

Approvals: Process Plan: M.L.J Date: 11/12/29 Tooling: \_\_\_\_\_ Date: \_\_\_\_\_ Run Start **\*NR1\***  
 QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_ Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D2662	Rev E								

100 0.00  
**\*100\*** HAAS CNC VERTICAL MACHINING #1  
 HAAS I Memo 0.00  
 HAAS CNC vertical machine #1 Program part number and batch number. SL 12-01-17 15  
 Inspect part number and batch number are programmed  
 MACHINE AS PER FOLIO FB068 & DWG  
 DWG REV: EAA  
 FOLIO REV: AA

110 0.00  
**\*110\*** CONVENTIONAL MILLING MACHINE  
 Mill Conv Memo 0.00  
 Conventional Milling Machine Machine Keyway and inspect per attached dimension sheet 10 15

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

December-29-11 10:36:44 AM

Page 2

## Hand Finishing

10X Ø m. 12/0/19

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



W/O:		WORK ORDER CHANGES					
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Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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**NOTE:** Date & initial all entries

**Work Order ID 78149**

December-29-11 10:36:44 AM

**\*78149\***

Page 4

Item ID: D2662-1      Accept      **\*N900040100\***      Setup Start **\*NS1\***  
Revision ID:      Stop **\*NS2\***  
Item Name: Saddle, LH In 206

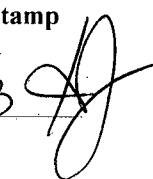
Start Date: 29/12/2011      Start Qty: 10.00      **\*10\***      Cust Item ID:

Required Date: 06/02/2012      Req'd Qty: 10.00      **\*10\***      Customer:

Reference:

Approvals:      Process Plan:      Date:      Tooling:      Date:      Run Start **\*NR1\***  
QC:      Date:      SPC (Y/N):      Date:      Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
180	QC21 - Final Inspection - Work Order Release	0.00							
<b>*180*</b>									
QC	Memo	0.00							
Quality Control									

12/1/23   
12-01-23  
CW

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



<b>DART AEROSPACE LTD</b>				<b>Work Order:</b> 78149	
<b>Description:</b> 206 Saddle, Inboard, Left side				<b>Part Number:</b> D2662-1	
<b>Inspection Dwg:</b> D2662 <b>Rev:</b> E <b>DSK:</b> <b>Rev:</b>				<b>Page 1 of 2</b>	

### FIRST ARTICLE INSPECTION DIMENSION SHEET

Dim	Min	Max	Go/No Go Gauge	Record Actual Dimensions				
				1	2	3	4	5
A	3.611	3.621		3.616	3.616	3.616	3.616	3.616
B	0.256	0.263		.257	.257	.257	.257	.257
C	0.315	0.322		.316	.316	.316	.316	.316
D	2.495	2.505		2.500	2.500	2.500	2.500	2.500
E	1.674	1.684		1.679	1.679	1.679	1.679	1.679
F	0.100	0.140		.120	.120	.120	.120	.120
G	0.210	0.230		.218	.218	.219	.219	.219
H	0.615	0.685		.685	.685	.685	.685	.685
I	2.470	2.510		2.490	2.490	2.490	2.490	2.490
J	1.313	1.343		1.324	1.324	1.324	1.324	1.324
K	0.178	0.198		.188	.188	.188	.188	.188
L	0.470	0.530		.500	.500	.500	.500	.500
M	1.125	1.145		1.135	1.136	1.135	1.135	1.135
N	0.100	0.180		.140	.140	.140	.140	.140
O	0.100	0.145		.130	.131	.132	.131	.132
P	0.240	0.260		.248	.248	.248	.248	.248
Q	0.677	0.697		.687	.687	.687	.687	.687
R	0.540	0.560		.549	.550	.550	.550	.549
S	0.912	0.932		.919	.921	.922	.922	.921
T	0.787	0.807		.799	.798	.797	.797	.798
U	5.990	6.010		5.999	5.999	5.999	5.999	5.999
V	4.995	5.005		5.000	5.000	5.000	5.000	5.000
W	0.490	0.510		.502	.501	.502	.501	.502
X	0.312	0.319		.313	.313	.313	.313	.313
Y	0.990	1.010		1.000	1.000	1.000	1.000	1.000
Z								
AA	1.245	1.255		1.250	1.250	1.250	1.250	1.250
AB	0.490	0.510		.500	.500	.500	.500	.500
AC	3.745	3.755		3.750	3.750	3.750	3.750	3.750
AD	0.100	0.140		.118	.119	.118	.118	.118
AE	0.235	0.240		.237	.237	.237	.237	.237
AF	0.510	0.515		.512	.512	.512	.512	.512
AG	0.100	0.120		.110	.110	.110	.110	.110
Accept/Reject								

Measured by:   J  

Date: 12-01-17

Audited by:   J  

Date: 12/01/18

Prototype Approval:                     

Date:

<b>DART AEROSPACE LTD</b>				<b>Work Order:</b> 78149	
<b>Description:</b> 206 Saddle, Inboard, Left side				<b>Part Number:</b> D2662-1	
<b>Inspection Dwg:</b> D2662 <b>Rev:</b> E <b>DSK:</b> <b>Rev:</b>				<b>Page 1 of 2</b>	

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G	0.210	0.230		.219	.219	.219	.219	.219
H	0.615	0.685		.685	.685	.685	.685	.685
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K	0.178	0.198		.188	.188	.188	.188	.188
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M	1.125	1.145		1.135	1.136	1.136	1.135	1.136
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O	0.100	0.145		.132	.132	.131	.131	.131
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AG	0.100	0.120		.110	.110	.110	.110	.110
Accept/Reject								

**Measured by:** *SL*

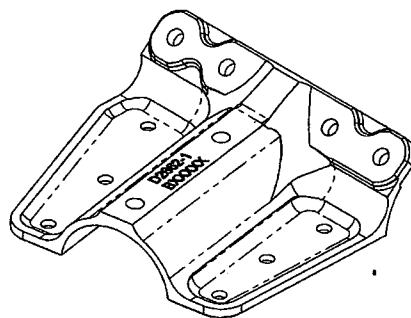
**Date:** 12-01-17

**Audited by:** *CMX*

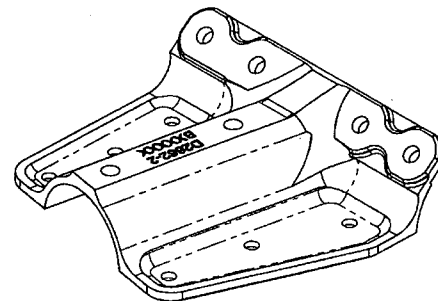
**Date:** 12/01/18

**Prototype Approval:**

**Date:**



**D2662-1 SADDLE, INSIDE, LH**



**D2662-2 SADDLE, INSIDE, RH**

SHOP COPY  
RETURN TO  
ENGINEERING  
UNCONTROLLED COPY  
SUBJECT TO AMENDMENT  
WITHOUT NOTICE  
WORK ORDER  
NO. 78149 M-LJ  
1112129

**RELEASED**  
2011-11-16  
*MT*

E	REDRAW & REFORMAT DWG; 0.687 WAS 0.547 (B8-2, B5-4), REF NCR 11-935	CP	11.10.31
D	R0.188 WAS R0.30; Ø0.316 WAS Ø0.313	CB	08.11.08
C	INCORP DEO 9122/9102/9095/9137	CB	06.05.29
B	ANGLE AND NOTES ADDED	KE	97.07.11
A	NEW ISSUE	DS	97.03.25
REV.	DESCRIPTION	BY	DATE
DESIGN	<i>JP</i>	<b>DART AEROSPACE USA, INC.</b> KENT, WA DRAWING NO. <b>D2662</b> TITLE <b>SADDLE, INSIDE</b> SCALE <b>NTS</b> REV. E SHEET 1 OF 5 DATE <b>11.10.31</b> <small>COPYRIGHT © 1997 BY DART AEROSPACE USA, INC. THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.</small>	
DRAWN	<i>JP</i>		
CHECKED	<i>AS</i>		
MFG. APPR.	<i>JP</i>		
APPROVED	<i>JP</i>		
DE APPR.	<i>JP</i>		

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

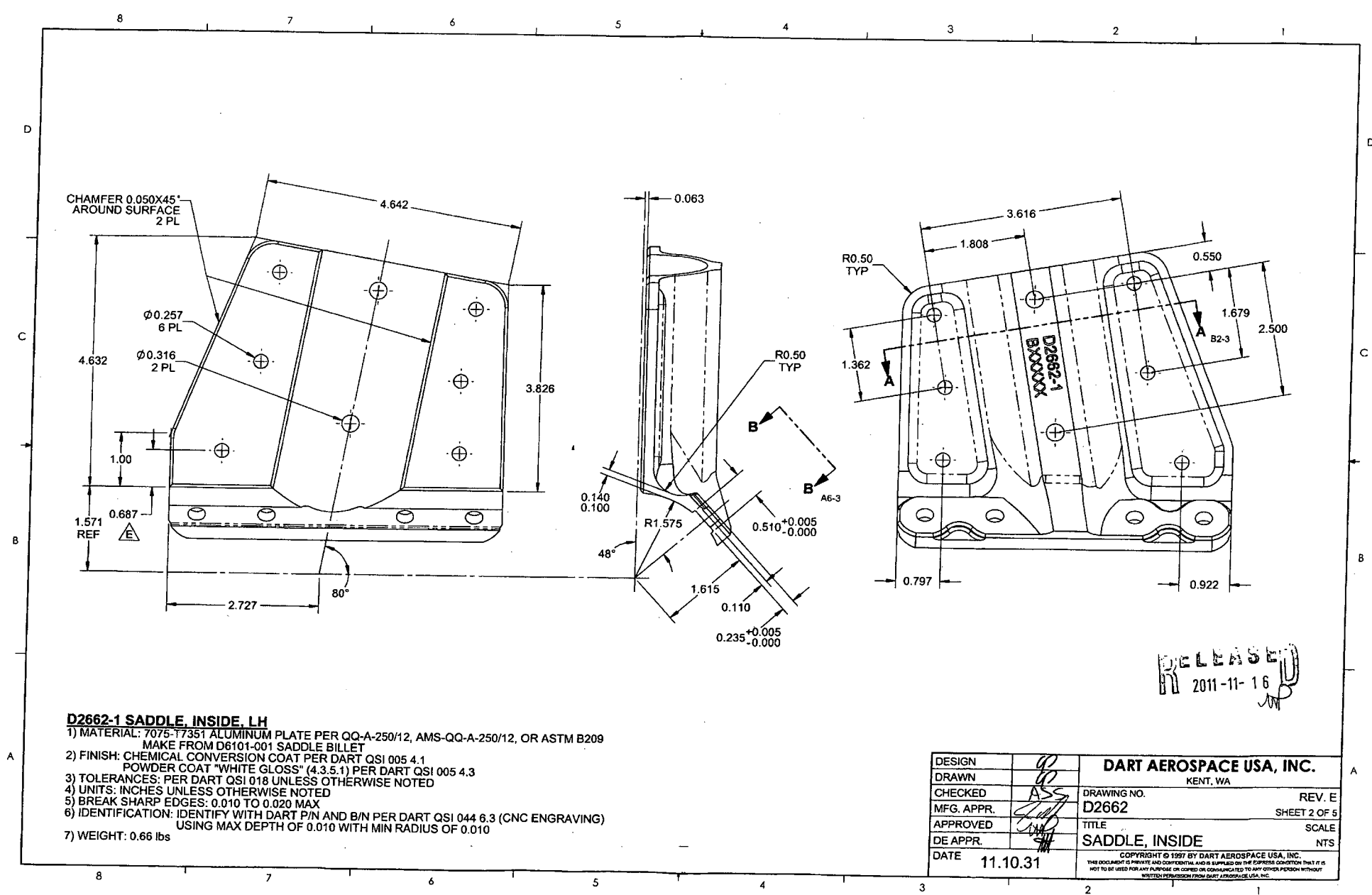
Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

78149



RELEASED  
2011-11-16

**D2662-1 SADDLE, INSIDE, LH**

- 1) MATERIAL: 7075-T7351 ALUMINUM PLATE PER QQ-A-250/12, AMS-QQ-A-250/12, OR ASTM B209  
MAKE FROM D6101-001 SADDLE BILLET
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1  
POWDER COAT "WHITE GLOSS" (4.3.5.1) PER DART QSI 005 4.3
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.010 TO 0.020 MAX
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N AND B/N PER DART QSI 044 6.3 (CNC ENGRAVING)  
USING MAX DEPTH OF 0.010 WITH MIN RADIUS OF 0.010
- 7) WEIGHT: 0.66 lbs

DESIGN		<b>DART AEROSPACE USA, INC.</b>	
DRAWN		KENT, WA	
CHECKED		DRAWING NO.	REV. E
MFG. APPR.		D2662	SHEET 2 OF 5
APPROVED		TITLE	SCALE
DE APPR.		SADDLE, INSIDE	NTS
DATE	11.10.31	COPYRIGHT © 1997 BY DART AEROSPACE USA, INC. THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.	

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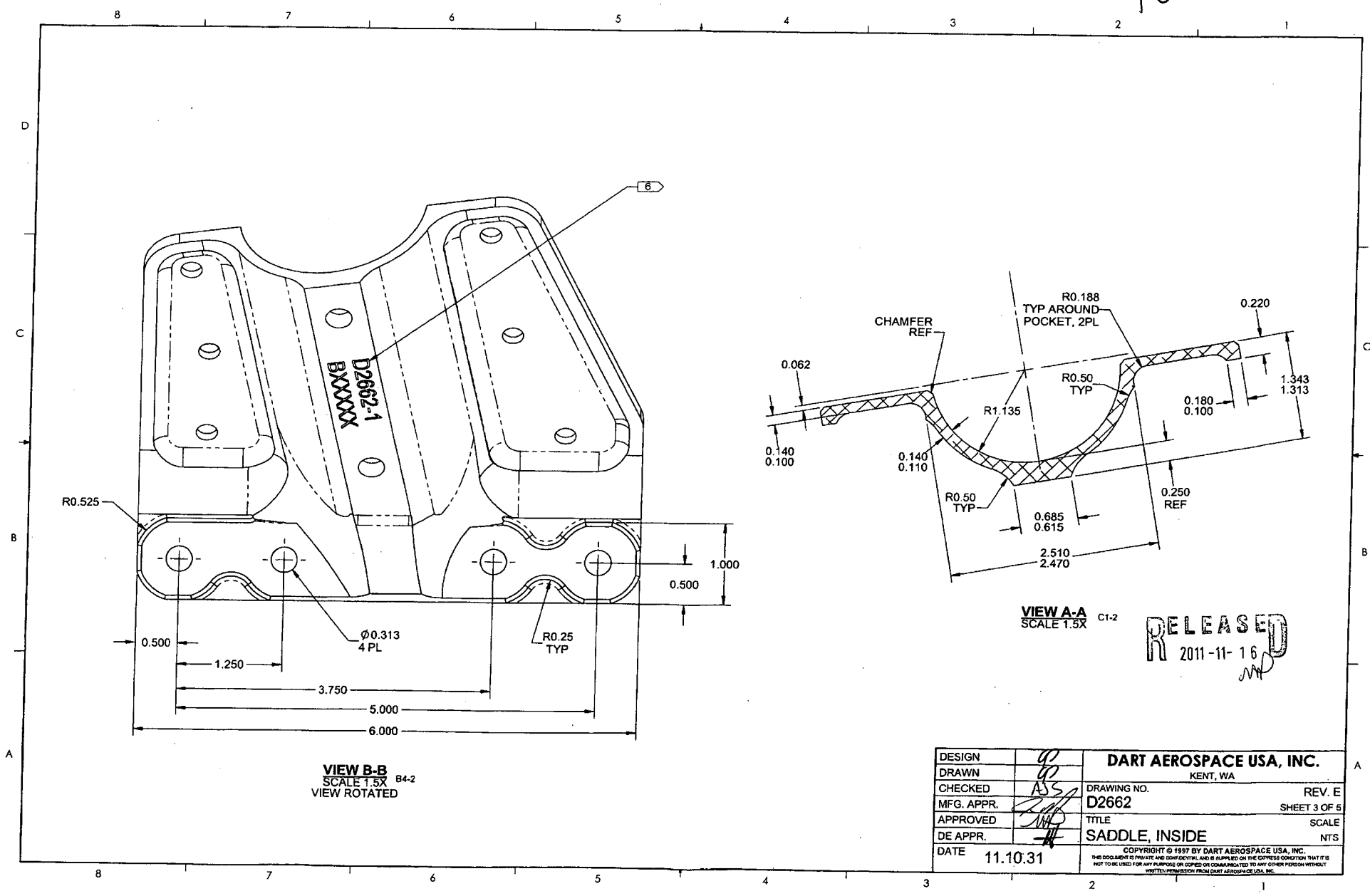
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Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
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**NOTE:** Date & initial all entries

78149



DESIGN	90	<b>DART AEROSPACE USA, INC.</b>	
DRAWN	90	KENT, WA	
CHECKED	ASS	DRAWING NO.	REV. E
MFG. APPR.		<b>D2662</b>	SHEET 3 OF 5
APPROVED		TITLE	SCALE
DE APPR.		<b>SADDLE, INSIDE</b>	NTS
DATE	11.10.31	<small>COPYRIGHT © 1997 BY DART AEROSPACE USA, INC. THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL, AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.</small>	

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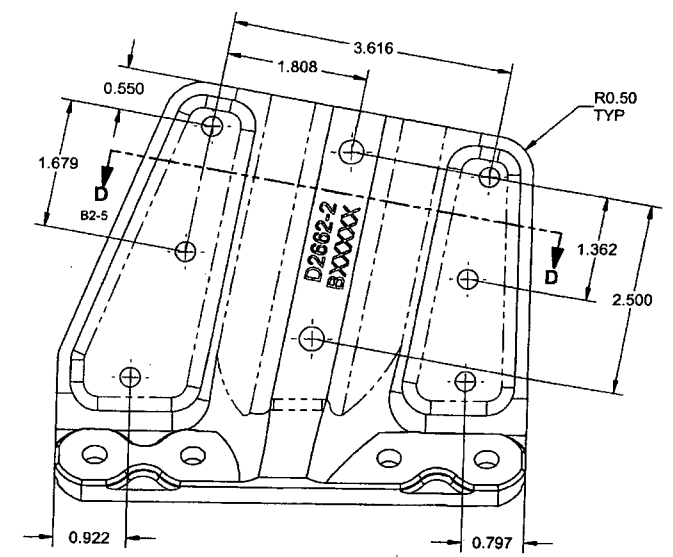
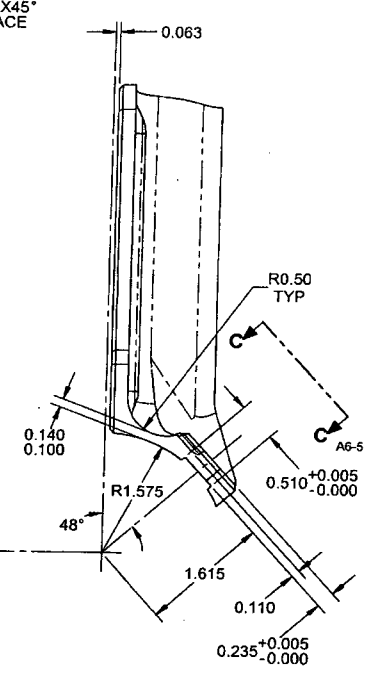
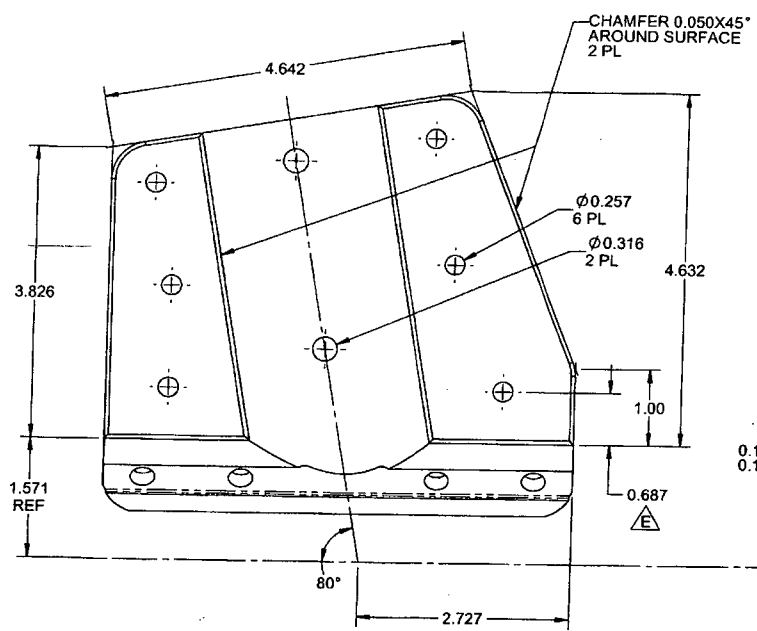
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**NOTE:** Date & initial all entries



78149



RELEASED  
2011-11-16

**D2662-2 SADDLE, INSIDE, RH**

- 1) MATERIAL: 7075-T7351 ALUMINUM PLATE PER QQ-A-250/12, AMS-QQ-A-250/12, OR ASTM B209  
MAKE FROM D6101-001 SADDLE BILLET
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1  
POWDER COAT "WHITE GLOSS" (4.3.5.1) PER DART QSI 005 4.3
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.010 TO 0.020 MAX
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N AND B/N PER DART QSI 044 6.3 (CNC ENGRAVING)  
USING MAX DEPTH OF 0.010 WITH MIN RADIUS OF 0.010
- 7) WEIGHT: 0.66 lbs

DESIGN	<i>JB</i>	<b>DART AEROSPACE USA, INC.</b>	
DRAWN	<i>JB</i>	KENT, WA	
CHECKED	<i>ASS</i>	DRAWING NO.	REV. E
MFG. APPR.	<i>[Signature]</i>	D2662	SHEET 4 OF 5
APPROVED	<i>[Signature]</i>	TITLE	SCALE
DE APPR.	<i>[Signature]</i>	SADDLE, INSIDE	NTS
DATE	11.10.31	COPYRIGHT © 1997 BY DART AEROSPACE USA, INC. <small>THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR REPRODUCED IN ANY MANNER WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.</small>	

W/O:		WORK ORDER CHANGES					
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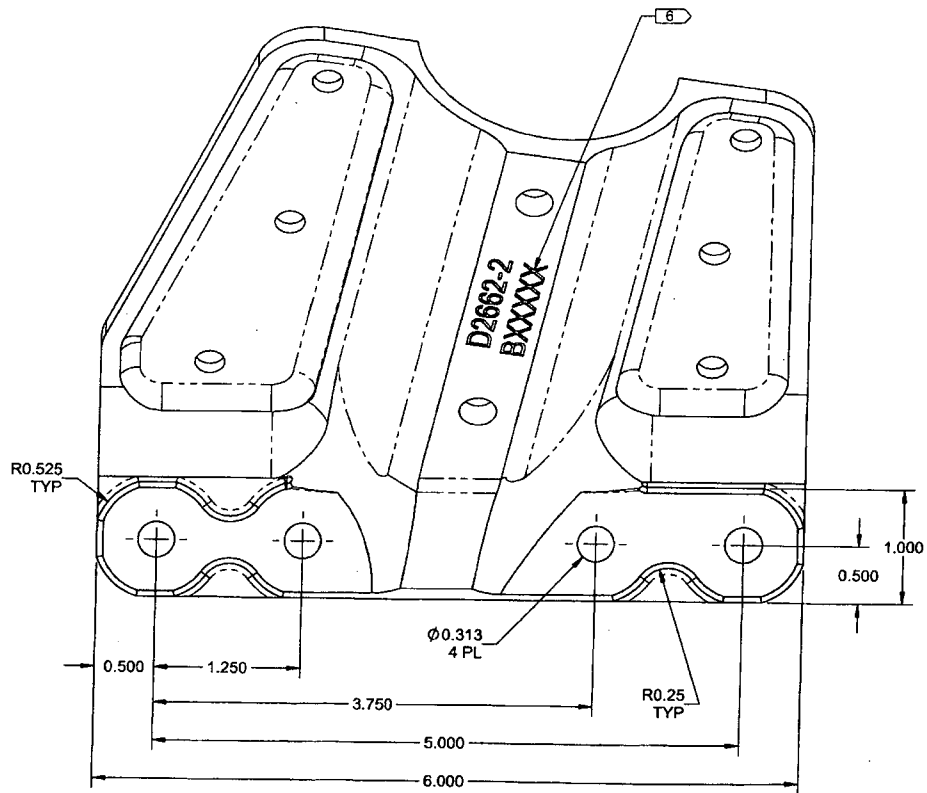
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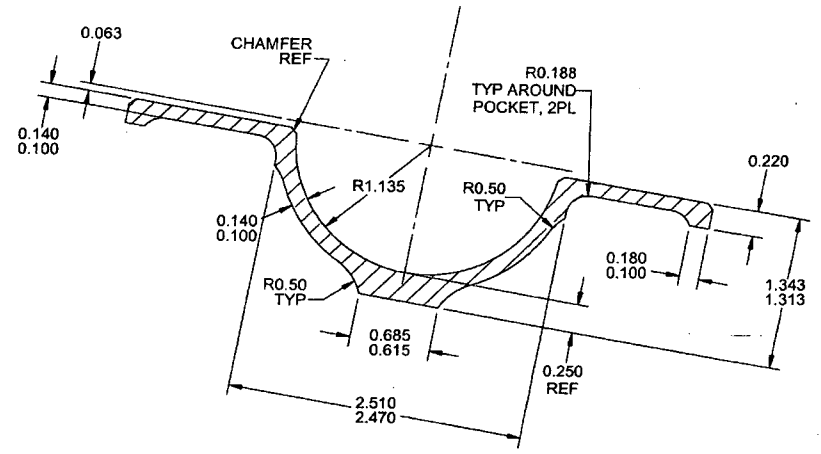
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**NOTE:** Date & initial all entries

78149



VIEW D-D  
SCALE 1.5X  
VIEW ROTATED



VIEW C-C  
SCALE 1.5X C3-4

RELEASED  
2011-11-16

DESIGN		DART AEROSPACE USA, INC.	
DRAWN		KENT, WA	
CHECKED		DRAWING NO. D2662	REV. E
MFG. APPR.		TITLE	SHEET 5 OF 5
APPROVED		SCALE	NTS
DE APPR.		SADDLE, INSIDE	
DATE	11.10.31	COPYRIGHT © 1997 BY DART AEROSPACE USA, INC. THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR REPRODUCED IN ANY MANNER WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.	

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